

Form PTO-1449 U.S. Department of Commerce
Patent and Trademark Office

Atty. Docket No. Serial No.

27987-208414 09/099,632

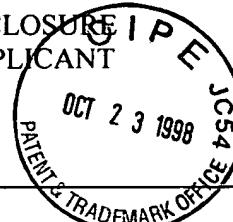
Applicant

THOMAS I. INSLEY et al.

Filing Date Group

June 18, 1998

INFORMATION DISCLOSURE STATEMENT BY APPLICANT



U.S. PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	4,668,558	05/26/87	Barber	—	—	
	4,871,623	10/03/89	Hoopman et al.	—	—	
	4,950,549	08/21/90	Rolando et al.	—	—	
	5,069,403	12/03/91	Marentic et al.	—	—	
	5,070,606	12/10/91	Hoopman et al.	—	—	
	5,078,925	01/07/92	Rolando et al.	—	—	
✓	5,133,516	07/28/92	Marentic et al.	—	—	
✓	5,158,557	10/27/92	Noreen et al	—	—	
	5,175,030	12/29/92	Lu et al.	—	—	
	5,200,248	04/06/93	Thompson et al.	—	—	
	5,249,358	10/05/93	Tousignant et al.	—	—	
	5,317,805	06/07/94	Hoopman et al.	—	—	
	5,450,235	09/12/95	Smith et al.	—	—	
	5,514,120	05/07/96	Johnston et al.	—	—	
	5,527,588	06/18/96	Camarda et al.	—	—	
	5,691,846	11/25/97	Benson Jr. et al.	—	—	

FOREIGN PATENT DOCUMENTS

	Name	Document Number	Date	Country	Class	Subclass	Translation Yes/No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

✓	Product Literature: Kernforschungszentrum Karlsruhe, "Metal Micro Heat Exchangers," DATE UNKNOWN.
✓	Article by: Peter Zuska, "Microtech Opens Doors To The Universe Of Small Space", Med Device & Diagnostic Industry, Jan. 1997; pg 131-137.
✓	Article by: Ottow et al; "Processing of 3D Microstructures Using Macroporous n-Type Silicon", J. Electrochem. Soc., Vol. 143, No. 1, Jan 1996; pg 385-390.
✓	Article by: Bier et al. "Gas to gas heat transfer in micro heat exchangers", Chem. Engineering & Processing; 32 (1993) 33-43, 1993.

M2:20203188.01

Leonard A. Feo 10/6/99 3/26/00



OMB No. 0651-0011

***Examiner:** Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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Date Considered

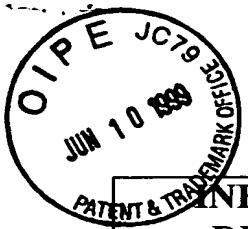
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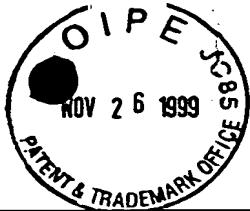
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* substantial duplicate of US 4,871,623
* see PTO 1449 filed 1/10/00 with translation

Page 1 of 1



OMB No. 0651-0011

INFORMATION DISCLOSURE STATEMENT	Atty. Docket No.: 53634USA8A.002		Serial No.: 09/099,632
	Applicant(s): Thomas I. Insley et al.		
	Filing Date: June 18, 1998	Group: 3743	

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Examiner Initial	Document Number	Date	Name	Class	SubClass	Filing Date If Appropriate
	3,520,300	7/14/70	Flower, Jr.	—	—	
	3,993,566	11/23/76	Goldberg et al.	210	433 M	4/8/75
	4,413,407	11/8/83	Columbus	29	825	11/9/83
	4,533,352	8/6/85	Van Beek et al.	604	317	3/7/83
	4,579,555	4/1/86	Russo	604	282	12/5/83
	4,601,861	7/22/86	Pricone et al.	264	1.6	8/10/84
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	4,677,705	7/7/87	Schuster	15	398	3/17/86
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	4,913,858	4/3/90	Miekka et al.	264	13	10/3/88
	5,014,389	5/14/91	Ogilvie et al.	15	353	11/15/89
	5,176,667	1/5/93	DeBring	604	356	4/27/92
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	5,703,633	12/30/97	Gehrer et al.	347	86	8/19/94

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*	DE 42 10 072 A1	3/25/93	Germany	—	—		X
	DE 195 01 017 A1	7/25/96	Germany	—	—	X	
	1 338 579	11/28/73	Great Britain	—	—	X	
	1 418 635	12/24/75	Great Britain	—	—	X	
	WO 89/04628	6/1/89	WIPO	—	—	X	
	WO 97/02357	1/23/97	WIPO	—	—	X	
	WO 97/13633	4/17/97	WIPO	—	—	X	
	WO 98/00231	1/8/98	WIPO	—	—	X	
	WO 98/24544	6/11/98	WIPO	—	—	X	

OTHER DOCUMENTS (Including Authors, Title, Date, Pertinent Papers, etc)

EXAMINER	Date Considered
<i>Leonard J. Lio</i>	3/26/00

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SUPPLEMENTAL
INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

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Group

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	3,715,192	2/6/1973	Wenz et al.	—	—	TC 3700 MAIL ROOM
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Name	Document Number	Date	Country	Class	Subclass	Translation Yes/No
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	WO 93/11727	6/24/1993	PCT WIPO	—	—	Yes

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

		Article: "Fabrication of Novel Three-Dimensional Microstructures by the Anisotropic Etching of (100) and (110) Silicon", Ernest Bassous, <u>IEEE Transactions on Electron Devices</u> , Vol. ED-25, No. 10, October 1978
		Article: "Simple and Low Cost Fabrication of Embedded Micro-Channels by Using a New Thick-Film Photoplastic" Guerin, et al. Digest of Technical Papers, Vol. 2, June 1997
		Article: "Fabrication of Microstructures with high aspect ratios and great structural heights by synchrotron radition lithography, galvanoforming, and plastic moulding (LIGA process)" Becker, et al. <u>Micromechanical Engineering</u> 4 (1986)
		Article: "UV Laser Machined Polymer Substrates for the Development of Microdiagnostic Systems" Roberts, et al. <u>Analytical Chemistry</u> , Vol. 69, No. 11, June 1997

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M2:20295152.0

Leonard A Leo 3/26/00

* previously cited on PTO 1449 filed 11/26/99